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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,041	07/13/2006	Johannes Arnoldus Jansen	207,623	9317
38137 7590 08/18/2010 ABELMAN, FRAYNE & SCHWAB 666 THIRD AVENUE, 10TH FLOOR NEW YORK, NY 10017				
EXAMINER				
BOWMAN, ANDREW J				
ART UNIT		PAPER NUMBER		
1711				
MAIL DATE		DELIVERY MODE		
08/18/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/586,041

**Applicant(s)**

JANSEN ET AL.

**Examiner**

ANDREW BOWMAN

**Art Unit**

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-15 is/are pending in the application.  
4a) Of the above claim(s) 9-12, 14 and 15 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1-5 and 7-15 remain pending in the current application with claims 9-12, 14, and 15 being withdrawn.

#### ***Response to Arguments***

With regards to the arguments of the applicant relating to the criticality of the wavelength of the laser, it is the position of the examiner that the applicant has effectively argued that the critical range (as shown by the current application) is less than about 200nm. However it should be noted that the ArF laser (previously cited in the prior art) has a wavelength under 200nm, which would be as critically valuable as the laser of the current application, especially with regards to the concept that the examiner argued that the laser of the current application is a mere optimization of the laser of the prior art. Both lasers are below the critically established range, with one being optimizably lower. Further, it is the position of the examiner that there is no evidence in the arguments or specification of the current application that 157nm is non-optimizably critical over the under 200nm wavelength of the prior art.

With regards to the applicant's statements relating to claim 1, claim 1 does not make any mention of the term "annealing".

With regards to the applicants arguments related to the lack of motivation, the examiner must point the applicant to the rejection wherein it states "one of ordinary skill in the art would be motivated to optimize the wavelength of the laser ..... in order to achieve the desired porosity." This can be considered nothing short of a clear motivation statement.

With regards to the applicants statements that optimization is merely asserted, the claims do not make statements with regards to the specific porosity; if so then the examiner would have provided statements as to why one would use a particular laser to achieve a particular porosity and why that porosity is desirable. However the case is that the examiner has used the reference to show that the porosity in general can be altered by the use of different lasers. Therefore the optimization is not merely asserted; rather it is only described relative to what is claimed.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotell et al. (WO 04/22513).

1. Regarding claims 1, 2, and 4-7, Cotell teaches that it is known to provide polymeric materials (claim 13) with an amorphous calcium phosphate coating (claim 5 and pg. 14, lines 20-27) while simultaneously crystallizing the laser deposited (pg. 7, lines 10-16) coating using a fluorine-containing compound based laser (pg. 14, line 36 through pg. 15, line 2), wherein the energy of the laser is 1-500 mJ/cm<sup>2</sup> (pg. 14, line 20 through pg. 15, line 2). Cotell fails to teach the use of a fluorine laser. However, Cotell does teach that in general, the wavelength of the laser is known to affect the porosity of the deposited film (pg. 11, lines 26-32). Therefore in the absence of criticality of the specific wavelength of the fluorine laser of the current claims, one of ordinary skill in the art would be motivated to optimize the wavelength of the laser (and as pointed out by the applicant, each type of laser has its own known wavelength, therefore leading one to choose a specific laser based on its own individual desired wavelength) used in the process of Cotell in order to achieve the desired porosity. Further it should be noted that the wavelength of fluorine lasers was known prior to the filing of the current claims.

2. Regarding claim 8, it is the position of the examiner that the position of the laser of Cotell would be controlled (i.e. it would not just be placed at random) and the process of Cotell would inherently create a "pattern of crystallization".
3. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotell et al. (WO 04/22513) in view of Li et al. (USPGPub 2002/0156529).

Regarding claims 3 and 13, the teachings of Cotell are as shown above. Cotell fails to teach wherein the substrate consists of one of the materials listed in the claims.

However, Li shows that it is well-known to deposit similar calcium/phosphorus type coatings (paragraph [0053]) on polyethylene (paragraph [0057]). One of ordinary skill in the art would be motivated to use the polyethylene of Li in the invention of Cotell because Li shows that polyethylene is a suitable material for the same types of coating to be used inside the body for similar purposes. Further, it is the position of the examiner that based on the methodologies of Cotell and the known chemical and physical properties of polyethylene, one of ordinary skill in the art would expect a very high degree of success from such a combination.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW BOWMAN whose telephone number is (571)270-5342. The examiner can normally be reached on Monday through Friday (7:30 to 5:00)EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew J Bowman  
Examiner  
Art Unit 1711

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/Michael Kornakov/  
Supervisory Patent Examiner, Art Unit 1714